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MAKE THIS MOTOR TABLE!



EVERY hour spent turning a crank on a piece of hand-operated equipment is an hour wasted, if a motor can do the job as well.

Here are easy-to-follow plans for making a simple table on which many kinds of hand-operated equipment can be placed for motor drive, each to be turned at the proper speed.

Each equipment to be driven is mounted on its own base board that slides between boards across the table

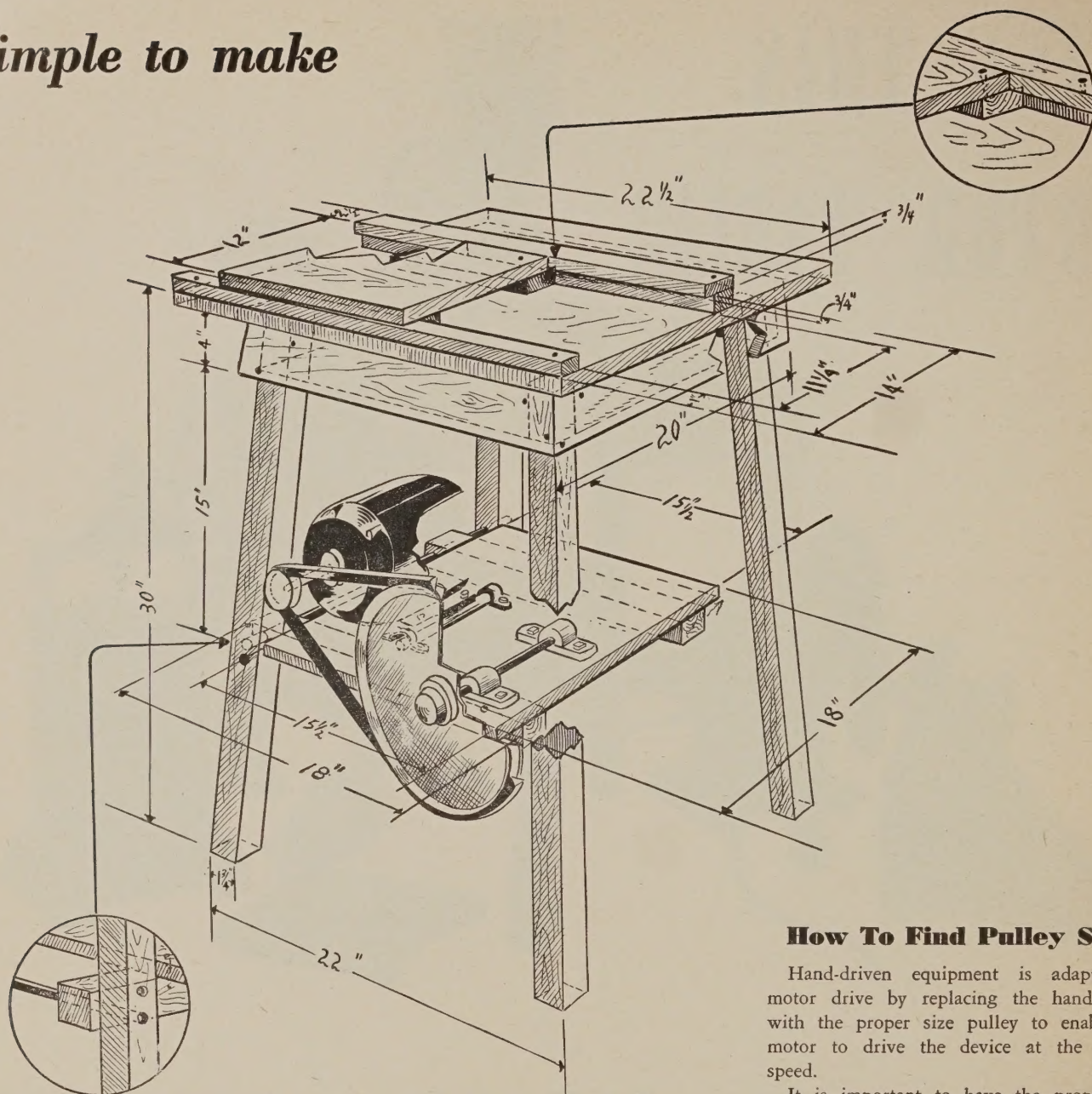
- For Simplicity**
- For Efficiency**
- Save Time**
- Save Labor**

top. A pulley on the equipment is attached by a belt to the pulley below, which in turn is belted to the motor. Or, for direct drive at higher speeds, the belt may be placed directly on the motor.

Notice that since the motor is mounted on a movable platform and the equipment may also be shifted along the table top, it is easy to adjust your belt for proper tension.

Use your electric motor to drive many kinds of hand-operated equipment.

Simple to make



How To Find Pulley Size

Hand-driven equipment is adapted to motor drive by replacing the hand crank with the proper size pulley to enable the motor to drive the device at the proper speed.

It is important to have the proper size pulley on the driven equipment. This is the way to determine the proper size:

Obtain pulleys of these sizes: for motor, 1 1/2 inches; for large pulley on shaft, 10 inches; for small pulley on shaft, 2 inches. Then the proper pulley size for slow-speed devices (up to 350 r.p.m.) equals:

$$525$$

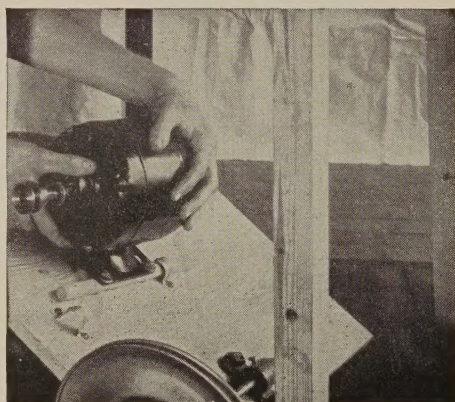
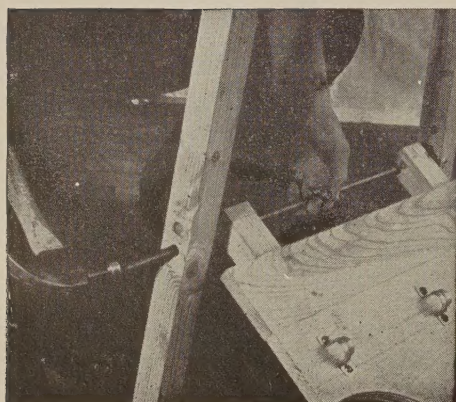
Correct speed of device = Size of pulley.

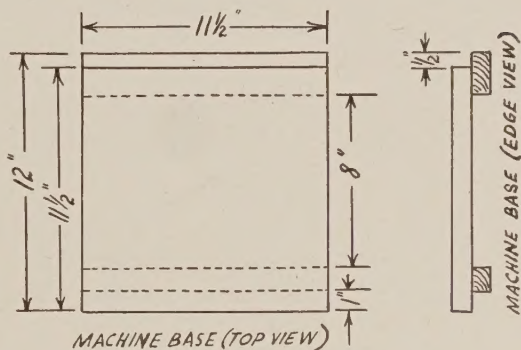
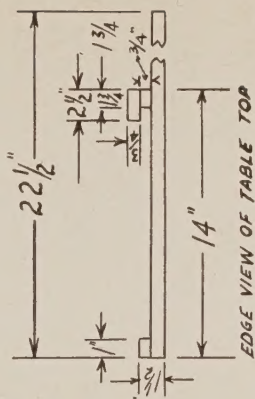
The best way to determine the correct speed of the device is to clock it with the second hand of a watch while cranking it by hand.

High speed equipment (turned at more than 350 r.p.m.) should be belted directly on the motor. To determine proper pulley size for these devices:

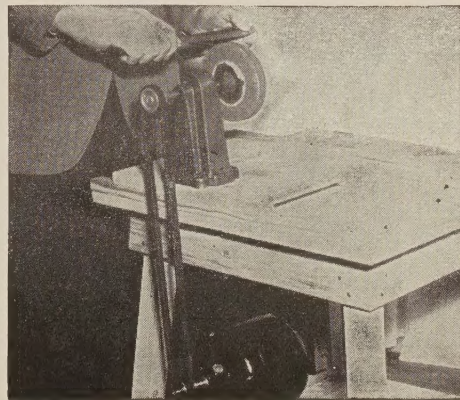
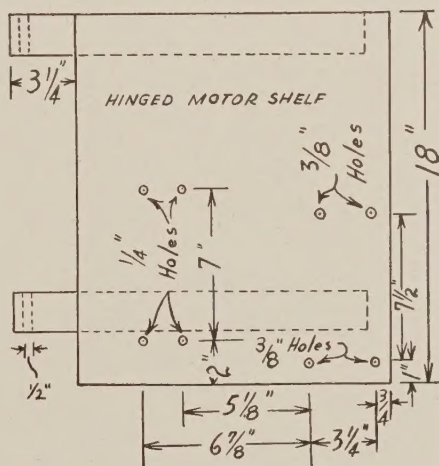
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Correct speed of device = Size of pulley.





Follow these plans



TO MAKE YOUR MOTOR TABLE

YOU NEED

THESE MATERIALS

Tips for Construction

Here are some suggestions that will prove helpful in assembling your motor table: 1. Legs and apron pieces must be angled to give the table greater rigidity. 2. When cutting all wooden pieces to proper size, cut 6-degree angle on two adjacent sides of top and bottom of each leg. To determine a 6-degree angle, measure up the leg 1-10th the width of the leg. 3. Nail the apron pieces to the top of the legs. (For greater strength, use bolts or screws instead of nails to fasten the aprons to the legs.) 4. Bevel the top outside edges of the apron pieces, using a plane, to a 6-degree angle, to fit the top of the table. 5. Nail support strips on table top boards, then nail completed top to apron pieces—not to legs. 6. Drill a $\frac{1}{2}$ " hole in two legs 15" below the apron to accommodate the hinge pin to hold the motor shelf. 7. Assemble shelf. Mark pivot holes by placing carpenter's square along outer edge of shelf to insure that pivot holes for hinge pin are exactly aligned with pulley shaft when assembled.

Mount each device on its own wooden base for quick, easy change of devices.

NO. OF PIECES	SIZE	USE
4	2" x 2" x 30"	Legs
2	2" x 2" x 18"	Hinged motor shelf
2	$\frac{3}{4}$ " x $11\frac{3}{4}$ " x $22\frac{1}{2}$ "	Table top
2	$\frac{3}{4}$ " x 4" x 20"	Table aprons
2	$\frac{3}{4}$ " x 4" x $18\frac{1}{2}$ "	" "
1	$\frac{3}{4}$ " x $11\frac{3}{4}$ " x 18"	Top of hinged motor shelf
1	$\frac{3}{4}$ " x $3\frac{3}{4}$ " x 18"	" " " " "
1	$\frac{3}{4}$ " x 1" x $23\frac{1}{2}$ "	Top edge strip
1	$\frac{3}{4}$ " x $1\frac{3}{4}$ " x $23\frac{1}{2}$ "	Lower strip across top
1	$\frac{3}{4}$ " x $2\frac{1}{2}$ " x $23\frac{1}{2}$ "	Upper strip across top
1	$\frac{3}{4}$ " x $11\frac{3}{4}$ " x $11\frac{3}{4}$ "	Machine bases (one for each machine)
1	$\frac{3}{4}$ " x 1" x $11\frac{3}{4}$ "	Machine base strip
1	$\frac{3}{4}$ " x 2" x $11\frac{3}{4}$ "	" " "
1	$\frac{1}{2}$ " x 24" dowel pin	Shelf hinge pin
2	$\frac{1}{2}$ " bore pillow block bearings.	Shaft housing
1	$\frac{1}{2}$ " x 12" Steel shaft	
1	10" V-Pulley; A Section; $\frac{1}{2}$ " bore-shaft pulley	
1	2" V-Pulley; " " " " " "	
1	$1\frac{1}{2}$ " V-Pulley; " " " " -motor pulley	
2	$\frac{1}{2}$ " pipe straps	Motor mounts
1	$\frac{1}{2}$ " x 10" dowel pin	Motor hinge
4	$\frac{3}{8}$ " x $1\frac{1}{2}$ " machine bolts & nuts	Fasten pillow blocks
4	$\frac{1}{4}$ " x 1" stove bolts & nuts	Fasten pipe straps
2	$\frac{1}{4}$ " x $1\frac{1}{2}$ " stove bolts & nuts	Fasten 10" dowel to motor
$\frac{1}{4}$ lb.	#8 box nails	Fasten legs & top to apron strips

Machine pulleys as needed for various speed machines. See method of calculating pulley sizes for driven machines in text.

(Note: Much of the lumber can be cut from larger pieces without waste)